

THE WISCONSIN ARCHITECT



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JULY-AUGUST 1 9 4 2 Vol. 10 No. 4

THE WISCONSIN ARCHITECT

Official Publication

The State Association of Wisconsin Architects

Wisconsin Chapter, The American Institute of Architects

Producers' Council Club of Wisconsin

LEIGH HUNT, Editor and Publisher 152 W. Wisconsin Ave., Milwaukee

Published Bi-Monthly Subscription, \$1.00 per year Address all communications for publication to Editor at 152 W. Wisconsin Ave., Milwaukee

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PHOTOGRAPHS AND NATIONAL DEFENSE — The Detroit News —

CLICK, THEN THE CLINK

If any other Detroit amateur photographers click their way into the clink, may their taking of pictures and sitting in the jug take place during the middle of the week.

It just happens that every one of a half dozen or so cases known to the writer where a photographer was taken into custody for making photographs out of turn, happened either on Saturday or Sunday.

While the photographer squirmed in the calaboose. officials would be trying by telephone to call up references to confirm what officials seemed invariably to consider a most suspicious story. And being the week-end, the persons supposed to be at the other end of the line were inconveniently away from home.

Nothing worse happened than an hour or two's detention at a station house or county jail. Eventually corroboration was obtained for all the innocent photographers' stories. In mid-week, the suspects would have been cleared within a few minutes.

PROHIBITED SUBJECTS

Inquiry of the two Federal agencies concerned with counter-espionage (who requested that their official designations be left out of this) revealed that neither one has on file an official order specifically listing the subjects that are illegal to photograph.

It seems almost as if it were the purpose to leave the whole matter to the discretion of local officials. A photographer taking pictures out in the open where he may be observed is liable to be taken into custody almost anywhere.

It certainly is reasonable enough that no photographs be made of war plants, which means almost all factories, of means of transportation, railroads, bridges, public utilities, harbors, docks, and defense equipment.

One Detroit blue-coat told a young woman whom he arrested and this is simply his version of it — that "nobody is allowed to take any pictures south of Jefferson avenue." This is another way of saying "no pictures of industrial plants and the water front."

A man at a federal agency concerned with such matters suggested that amateurs confine their photography entirely to their own yards — just to be on the safe side. There is no legal or logical ground for such severe restriction.

OPEN FIELDS

Purely as opinion and only that, it seems to the writer that amateur photography is not hampered at all. How many docks, railroad bridges and factories do must of us shoot in a summer anyhow?

We make portraits, pictures around the home and garden, color and monochrome pictures at inland lakes and parks and vacation pictures. Even the most suspicious constable would probably regard a rural land-scape or a cow-pasture photograph as innocuous.

In short, if discretion is used; if, only as a matter of courtesy, permission is asked of the farmer when his premises are entered or photographed, nothing likely will happen. The prohibited subjects are those that most of us would not take anyhow. So our style is not cramped at all.

RECENT CASES

However, not to make the prospects seem too rosy and to illustrate how even the most innocent photographer may see the inside of a hoosegow for the first time, here are some examples of what may happen to unlucky or indiscreet amateurs.

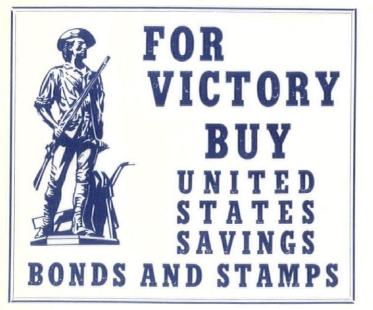
Last Sunday morning, a young professional woman who lives at the Pasadena apartment on East Jefferson avenue, sauntered out into the beckoning sunlight with her camera. She stopped to take a close-up of a clump of grass in an empty lot, pointing the camera from a kneeling position. A watchman who saw this, telephoned the police.

Later on, that grass photography mistified the cops most of all and seemed most inexplicable and hence most suspicious. Certainly the Japs and Nazis were mixed up in something as goofy as that. Approaching the river, the young woman pointed her camera at a waterlogged barge at which point the officers in a scout car nabbed her.

After a ride in two scout cars, an involuntary visit of several hours at the Hunt street station and the answering of innumerable questions, she finally was released. One of the cops either pretended to be or actually was terribly dumb about photography. He wanted to check on the girl's story of what she had photographed. So he took out the roll of Double X and inspected it from end to end to find the images.

Several members of the Photographic Guild were arrested north of Pontiac when they attempted to photograph a hip-roof barn and a country school house. Deputy sheriffs took them to jail and kept them there until the arrival of the sheriff who released them with apologies.

A newspaper photographer, with credentials at that, was arrested at Durand, Mich. for making a photograph of the village depot. He had previously received permission from one railroad official but another one, who felt slighted, caused his arrest. Being Saturday afternoon, the sheriff had quite a time locating Detroit persons who would verify the credentials, which after all might have been forged.





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STRUCTURAL INSULATING BOARD STANDARDS

A revision of Simplified Practice Recommendation R179-41, for Structural Insulating Board (vegetable fiber type) has been approved by the industry and is effective from June 1, 1942, according to an announcement of the Division of Simplified Practice of the National Bureau of Standards.

The revised recommendation will be identified as

Simplified Practice Recommendation R179-42.

As originally promulgated in 1941, the recommendation covered standard sizes, thickness and treatment of edges for various types of vegetable fiber insulating board.

The current revision eliminates the 3 x 8 inch sheathing board as a standard size and adds the 4 x 6 inch building board with $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch thicknesses

as standards.

Until printed copies are available, free mimeographed copies of this revised recommendation may be obtained from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

REINFORCING BARS REVISED PRACTICE

The Division of Simplified Practice, National Bureau of Standards, announces a revision of the simplified list of cross-sectional areas for steel reinforcing bars, effective from June 15, 1942.

The first edition of this recommendation, approved by the industry in 1924, established 11 cross-sectional areas, the purpose being to retain as many as possible of the advantages which had accrued to the industry as a result of simplification during World War I, under the guidance of the Conservation Division of the War Industries Board. The 1924 list reduced the prevailing variety of sizes from 32 to 11, an elimination of more than 65 per cent.

A revision of this recommendation in 1930 left undisturbed the listing of 11 cross-sectional areas, but expressed those areas in hundredths, instead of thousandths of a square inch. This was done to further simplify the work of engineering design where reinforced concrete is used. Engineering handbooks, reference tables, wall charts, and other texts immediately recog-

nized this change.

The industry, therefore, was well prepared at the advent of the present war to effect a further reduction in variety, if such action would further conserve materials, rolls, and manpower for the war program. In consequence, R26-30 was revised in May, 1942, to dispense with the use of the ½-inch square bar for the duration.

Consonant with the accord of the industry and the war agencies on this action, the Division of Simplified Practice, National Bureau of Standards, has notified all acceptors of record concerning this emergency revisio:

of R26-30.

In addition to the simplified schedule itself, the new publication, R26-42, Steel Reinforcing Bars, will include a brief history of the development of the project

Until the printed issue is available, free mimeographed copies of this revised Simplified Practice Recommendation may be obtained from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

THE CONSERVATION OF CRITICAL MATERIALS IN CONSTRUCTION

A Progress Memorandum to The Construction Industry
By Cooperating Committees of

THE AMERICAN INSTITUTE OF ARCHITECTS and

THE PRODUCERS' COUNCIL, INC. June 23, 1942

(Continued from May-June Issue)

Memorandum — Conservation of Critical Materials

DEMOLITION

Specifications should particularly require that care be exercised so to conduct operations as to insure maximum salvage of critical materials and that same be properly sorted to facilitate re-use or availability as scrap.

EXCAVATION AND GRADING

The use of hemp or jute mats, in blasting, should be

avoided by specifying timber coverage.

As in "Demolition" the specifications should provide for the salvaging and sorting of all piping, conduit, and other critical materials.

Existing utility service connections should be located, protected and maintained for re-use or salvaging.

SHORING, SHEET PILING & BRACING

This portion of the work should be carefully studied to eliminate both structural and sheet metal and make the fullest possible use of wood.

Concrete footings, wherever possible, should be designed without the use of reinforcing steel. In many cases, masonry

may be substituted.

Through careful design and location of construction and expansion joints foundation walls of concrete may be constructed without reinforcement. In many localities rubble masonry will be not only satisfactory but economical.

Greater use should be made of concrete blocks and structural clay tile for foundation walls, especially for smaller structures, using materials adapted to frost and weathering where such conditions apply.

Where ready-mixed concrete plants are available specifications should require the use of the ready-mixed product and

so avoid the use of unnecessary job equipment.

MASONRY AND CONCRETE WORK ABOVE GRADE

Poured concrete walls should be designed to reduce reinforcing to the minimum and masonry walls of brick or structural clay tile or concrete units should be designed to avoid the use of metal ties, wire mesh or other metal accessories.

The Portland Cement Association has developed design data which reduces the use of steel to a minimum and facilitates the redesigning of steel structures in reinforced concrete. Comparative studies of floor and roof construction which insure the maximum conservation of critical materials are also available.

Light weight concrete materials reduce the mount of sup-

porting and reinforcing steel.

Design masonry exteriors so that openings may be spanned with stone lintels or brick arches, on the face, and with brick arches or wood lintels for support of backing.

Design chimney tops and masonry vent flues for stone,

terra-cotta, concrete or similar finish instead of metal.

Chimneys and fireplaces should be studied to eliminate metal accessories.

Openings for smoke pipes can be formed with tile instead of metal pipe rings.

Specify precast concrete, clay tile, wood or other types of non-metallic vents.

Ready-mixed concrete, where available, should be specified to avoid unnecessary job equipment.

CUT STONE

Advice should be sought from contractors and producers as to methods of jointing and bonding which eliminate the use of metal anchors, etc.

FLOOR AND ROOF CONSTRUCTTION

Concrete floors or slabs supported on the ground should be designed to eliminate reinforcing.

In concrete floor and roof construction increase thickness and reduce reinforcing.

Reference is made under "Masonry and Concrete Work" above to the availability of comparative studies of floor and roof constructions which insure the maximum conservation of critical materials, and to the availability of light weight concrete materials which reduce the amount of supporting and reinforcing steel.

Where fireproof structures are, for whatever reason, mandatory, adopt systems of construction requiring the minimum quantity of steel. Concrete joists in combination with tile provide soffits to which plaster may be applied directly.

In all cases require the use of wood forms and avoid the use of metal specialties unless included in the list of permitted

Local practice frequently employs greater live loads than are necessary. These should be reduced to the minimum consistent with safety.

WALKS AND DRIVEWAYS

Concrete walks and driveways may frequently be increased in thickness and the use of reinforcing avoided.

STAIRS AND STEPS

WA-32-42

Stairs and steps should be designed in reinforced concrete using wood forms, as a substitute for steel and iron.

Use non-slip inserts or an integral material in place of metal safety treads.

Construct exterior steps of masonry, cut stone or wood.

STRUCTURAL STEEL

Where structural steel is permitted, the design should be carefully studied to insure the utmost value for every pound of steel used.

A review of most structures will show that assumed live loads are too great and design stresses too low.

Support should be given to the effort being made to bring these factors into line with emergency requirements.

Designers should consult with steel fabricators for information as to the reduced list of sizes and shapes of available sections. MISCELLANEOUS METAL

The use of aluminum, cadmium, nickel, magnesium, vanadium and chromium is prohibited, for construction purposes, except chrome pigment for certain types of camouflage paint.

Copper and its alloys, including brass and bronze, are prohibited except for a specific list of essential uses. The use of metallic lead in construction work is to be avoided, except where the use of a less critical material is impractical. Its use for a specific list of items is prohibited, except where required to comply with Underwriters' Regulations and Safety Regulations issued under governmental authority.

The use of steel and iron is limited to a specific list of essential uses while tin and zinc and their products, are permitted for a very limited list of specific and essential uses. The use of zinc for protective coatings is confined to a few conditions where corrosion or extreme weathering is to be experienced.

Where steel or iron is used and exposed to the weather protection can be obtained by bonderizing and painting.

METAL DOORS AND WINDOWS, FRAMES AND SASH
Steel and iron doors, sash and frames may be used at fire exposure openings and for large hanger doors.

ROOFING AND SHEET METAL

The use of copper, tin, lead, and steel and iron for roofing is prohibited, except lead flashings may be used for vent pipes

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in permanent construction and steel and iron may be used for flashings, gutters, downspouts, skylights, ventilators, and louvers not heavier than 26 gauge to the extent that non-metallic materials are not available.

Where exposed sheet metal work is permitted in permanent construction, a galvanized coating may be used. Sheet metal may be protected by bonderizing, heavy bituminous coatings, red lead or other suitable liquid coatings.

CARPENTRY

The regulations prohibiting the use of metals will necessitate the greater use of wood. The lumber industry, in order to meet the demands, will find difficulty in furnishing seasoned material or the grades and dimensions heretofore available, and Architects and Engineers should design with these conditions in mind.

Wood framing should be designed to minimize use of metal joist and beam hangers and post caps. Metal devices, designed on engineering principles, facilitate the construction of trusses of long spans where steel would ordinarily be used.

Nail sizes should be carefully considered. A well-studied nailing schedule can, with advantage, be placed on the drawings. This practice has already been adopted in some sections of the

country.

In finished carpentry it will be found that manufacturers' standard millwork is more economical in material and production cost than specially designed finish. Use standard millwork to the fullest extent.

Where necessary to use wood in locations subject to fire hazards, study methods of protection — fireproofing of wood by chemical treatment, flameproofing by spraying with a fire retardent or covering with a non-combustible and non-conducting material, provide varying degrees of protection.

Heavy timber construction can be substituted in place of

steel, in many instances.

Certain woods provide substitutes for steel tanks, pipe-

lines, gutters, and downspouts.

The availability of acceptable treatments for the preservation of lumber against insects and rot deterioration permits a wider use of lumber, as a substitute for critical metals, in many types of construction.

Industrial wood sash details are being developed as a

substitute for metal sash.

Wood grilles can be substituted for metal in the sink sec-

tions of kitchen cabinets and radiator enclosures.

Research is continuing to develop improved technics in the production of plywood to render it adaptable to an increasing number of uses as a substitute for critical materials.

Among these developments are moulded plywood and waterproof panels for exterior use.

FURRING AND LATHING

The use of metal for furring and lathing, except wire fabric is prohibited.

In place of metal, furring may be of masonry (structural

clay tile, cinder concrete or gypsum block) or wood, as required by conditions.

Wood furring may be reproofed where non-combustible material is required.

Certain prefabricated plaster base materials provide substitutes for prohibited metal lath.

INTERIOR MARBLE, SLATE AND STRUCTURAL GLASS

Marble, slate or structural glass may be substituted for metal in toilet stalls, shower compartments and first aid rooms. Marble unit partitions are available which eliminate critical materials, except for hinges and strikes.

Advice should be sought from producers in these divisions to determine details of installation which will avoid use of

critical metals.

Mastics are available for the installation of wall finish. TERRAZZO AND OTHER FLOOR FINISH

The terrazzo industry is offering plastic strips in place of

the metal previously employed. Marble mosaic and strips have also been successfully employed as dividers and the industry is endeavoring to develop other materials which may be used.

The use of white Portland Cement for factory floors provides reflecting qualities which reduce lighting requirements resulting in the conservation of the critical materials required for electrical work.

A new type of asphalt tile, designed to prevent the accumulation of static electricity, has been developed for use in arsenals, shell and bomb loading plants, hospitals, and various industries in which static electricity presents a safety hazard.

THE

Tile is not on the prohibited list but many installations of wall tile require the use of metal lath, now prohibited, or wire fabric. If wire fabric is not available, it is suggested that the adhesive which permits the application of tile to a dry base, be investigated.

The tile industry has developed a tile bathtub which may be built in place. This may be found to be a satisfactory sub-

stitute for fixtures of critical materials.

HOLLOW METAL AND METAL COVERED WOOD

Are prohibited except at fire exposure openings and for large hanger doors.

WEATHER STRIPS

Metal weather strips are prohibited. Storm sash offers a means of reducing heat losses at exterior openings.

WINDOW AND DOOR SCREENS

Non-ferrous metal frames and screening are prohibited.

Use wood frames and steel or iron screening. The life of

steel or iron screening may be considerably extended through the application of selected protective coatings, other than zinc. PAINTS

Aluminum is on the prohibited list. Lead and "American Processed" zinc oxide for pigment use are now available.

Manufacturers are reformulating their standard products to use available or less critical or non-critical materials and architects should consult with the representative of producers to determine the available materials best adapted to particular uses. PLASTICS

In addition to the plastic strips, above mentioned in connection with terrazzo flooring, plastic trim for interior finish, including cabinets, counter tops, etc., has been developed.

Plastics are being substituted for metals in connection with

hardware and lighting fixtures.

HARDWARE

Hardware manufactures are required to eliminate non-ferrous metals except brass and bronze for the working parts of locks.

Protective zinc coatings may be used on hardware only where exposed to extremely corrosive conditions.

Plastics may, in many cases, be used for hardware trim. Use glass or plastic push plates. Tempered hardboard produces satisfactory kick plates.

INSULATION

Insulating materials in conserving heat losses, contribute to the conservation of critical materials through reductions in required capacity of heating equipment.

HEATING, VENTILATING AND AIR CONDITIONING

Boilers and furnaces have been developed with metal weight substantially reduced.

Non-metallic boards are being used in return air duct systems and efforts are being made to find acceptable substitutes that are not only practicable but fire resistant, for warm air ducts.

In connection with heating equipment and accessories many stock items formerly listed have been discontinued, or are unavailable, and in designing heating and ventilating installations information should be obtained as to the availability of certain types of equipment, accessories, etc.

Steel and iron are permitted for air condition equipment

made mandatory by manufacturing and processing procedures. only to the extent that other substitutes, other than ferrous and non-ferrous metals, are not available.

ELECTRICAL

The restrictions imposed upon the use of copper and rubber call for careful study in the design of electric installations.

The Edison Electric Institute reports activity in lower cost wiring and materials particularly designed to conserve rubber and copper and yet retain a high safety factor and efficiency.

In this connection covered neutral cable (CNX) has been pleaed on the permitted list of critical materials for defense housing and has been approved by the Electrical Committee for

Lighting fixtures in the substitution of glass, plastics, steel and iron, and other materials, reflect the necessity of conserving critical materials.

In many cases it is possible to plan for future outlets and connections which are not included as a part of the original installation.

PLUMBING AND FIRE PROTECTION

The conditions applying to many materials used in heating are also applicable to plumbing work.

The producers of plumbing equipment are endeavoring to find substitutes for equipment where the use of critical materials must be continued until non-critical materials are available.

Cast iron fittings of special design containing a lead insert have been devised to take the place of brass ferrules and solder-

Special lead trap covers and trap screws will also eliminate the use of brass.

Kitchen sink and tub combinations of soapstone are available, in lieu of enameled iron or steel. In many cases in industrial and laboratory installations, marble, slate or soapstone may be substituted in place of metal.

In connection with fire protection equipment, housings of automatic control equipment and signal devices, formerly made of cast aluminum, are now made of cast iron black enameled.

In the manufacture of prefabricated shower cabinets noncritical materials have been substituted for the steel formerly employed.

ELEVATORS

Newly developed designs of wood cabs are available, to take the place of metal cabs, and accessories such as handrails and kick plates, and entrance treatment may be of wood finish or of ebonized wood, with lighting fixtures, car operating panels and position indicators, of steel lacquered to match bronze if desired.

Threshold and wrench hole plates are available of cast iron, instead of bronze or nickel silver, and car gates, of the collapsible type, of cold rolled steel, Parkerized and lacquered in black or in standard bronze color.

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